

SAFRIS, L.V., dotsent.

Selection of parameters for impulse transformers of telemechanical communication lines. Trudy RIIZHT no.19:84-91 '55. (MIRA 9:7)  
(Railroads--Communication systems) (Electric relays)

112-57-7-14830

Translation from: Referativnyy zhurnal, Elektrotehnika, 1957, Nr 7, p 149 (USSR)

AUTHOR: Safris, L. V.

TITLE: Design of Magnetic Amplifier on the Basis of Linearized Characteristics  
of Magnetization (Raschet magnitnogo usilitelya po linearizirovannym  
kharakteristikam namagnichivaniya)

PERIODICAL: Sb. nauch. statey. Rostovsk. in-t inzh. zh.-d. transp., 1956,  
Nr 20, pp 89-106

ABSTRACT: It is shown that, with certain assumptions, the linearized characteristics of simultaneous magnetization of a core by constant and alternating magnetic fields can be used to design a magnetic amplifier and analyze its functioning. On the basis of these characteristics, an "intrinsic magnetic amplifier equation" has been deduced as  $s = k/R_i$ . The quantities of this expression are analogous to the transconductance, internal resistance, and amplification factor of an electron tube. Design formulas are deduced, and equivalent circuits are presented for various methods of load connection: (a) in the AC circuit;

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Design of Magnetic Amplifier on the Basis of Linearized Characteristics . . .

(b) differentially in the AC circuit; (c) via an amplifier with a current-type feedback. Design formulas for all quantities characterizing the magnetic amplifier's operation become simple and clearly discernible. Experimental verification has shown that accuracy of the above design is acceptable for a preliminary design stage of a magnetic amplifier. The article includes thirteen illustrations. Bibliography: 4 items.

F. I. K.

Card 2/2

112-2-4294

TRANSLATION FROM: Referativnyy zhurnal, Elektrotehnika, 1957,  
Nr 2, p. 250 (USSR)

AUTHOR: Safris, L. V.

TITLE: Calculating the Current in an Inductive Load Connected  
Across a Rectifying Bridge (Raschet toka v induktivnoy  
nagruzke, vkluchennoy cherez vypryamitel'nyy most).

PERIODICAL: V. Sb.: Nauch. statey. Rostovsk. in-t inzh. zh.-d.  
transp., 1956, Nr 20, pp. 107-112.

ABSTRACT: A method has been developed for calculating approximately  
the average current value in steady state ( $I_{H0}$ ) and transient  
( $I_{HO}$ ) conditions in a resistance-inductive load ( $R_H, L_H$ ) con-  
nected across a rectifier bridge with semiconductor rectifiers  
to a source of a-c. voltage  $e = E_m \sin(\omega t + \phi)$ , with internal  
resistance  $R_i$ . In the course of each half-cycle, two operating  
conditions occur in sequence in this rectifier circuit: the  
"normal" state when two arms of the bridge are conducting cur-  
rent, and the "commutation" state when all arms are operating.  
The corresponding equivalent circuits can be considered linear  
within the limits of each state, which makes it possible to set  
up separate differential equations for each state. These equa-  
tions can be solved by combining the current values in the

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112-2-4294

## Calculating the Current in an Inductive Load (Cont.)

moments of transition from one state to the other for each half-cycle of the circuit frequency, or once in the steady state. Values were determined by the graphic analysis method for the current  $i_H$  in the transient state for a number of parameter values in the ranges

$$\frac{R'_H}{R'_1 - R'_H} = 0.1 \text{ to } 1.0; \frac{R'_H}{\omega L_H} = 0 - 0.3; \psi = 0 \text{ and } \psi = \frac{\pi}{2},$$

where  $R'_1 = [(R_1 + r_a)0.5r_f] / (R_1 + r_a - 0.5r_f)$ ,  $R'_H = R_H + r_a$ ,  $r_a$  and  $r_f$  being the forward and reverse resistances of the rectifiers. On the basis of processing these solutions, the following approximate expression (accuracy up to 5 per cent) is recommended for calculating the average value of load current:

$$I_{HO} = I_{HO}(1 - e^{-t/\tau_3}), \text{ where } I_{HO} = (2/\pi)E'_m \xi / (R'_1 + R'_H),$$

$$\tau_3 = L_H / (R_1 + R'_H) \rho, E'_m = E_m 0.5r_f / (R_1 + r_a + 0.5r_f), \xi \text{ and } \rho$$

are coefficients depending on the ratios  $R'_H / (R'_1 + R'_H)$  and  $R'_H / \omega L_H$ . A graph is given for determining  $\xi$  and  $\rho$ . The calcu-

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112-2-4294

## Calculating the Current in an Inductive Load (Cont.)

lations show that the commutation process, conditioned by the load inductance, causes the current  $\mathcal{T}_{H0}$  to increase  $\xi$  times and the duration of the transient condition  $1/\rho$  times by comparison to a case where the circuit  $(R'_i + R'_H, L_H)$  is connected directly to a d-c voltage source equal to  $2E'_{m\pi}$ . The lower  $R'_H/C_0 L_H$  value, the greater is the increase. Examples are given of these calculations, which have been quite well confirmed by oscillogram studies. Two bibliographic entries.

V.A.L.

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112-57-7-14832

Translation from: Referativnyy zhurnal, Elektrotehnika, 1957, Nr 7, p 150 (USSR)

AUTHOR: Safris, L. V.

TITLE: Transients in No-Contact Magnetic Relays

(Perekhodnyye protsessy v beskontaktnykh magnitnykh rele)

PERIODICAL: Sb. nauch. stately. Rostovsk. in-t inzh. zh.-d. transp., 1956,  
Nr 20, pp 113-124

ABSTRACT: Often the duration of a transient is a criterion for evaluating the possibility of applying a magnetic relay in a circuit. It is pointed out that the influence of various factors on the transient duration can be explored in a feedback-type magnetic amplifier. A compatible solution of the set of equations that describe a magnetic amplifier under transient conditions permits finding the transient duration. The influence of the number of turns of control and feedback windings, and also of the output-circuit equivalent impedance on the transient duration is pointed out. Conclusions of the above analysis are corroborated by experimental data. The article includes 14 illustrations. Bibliography: 7 items.

F.I.K.

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103-19-3-5/9

AUTHOR: Safris, L. V. (Rostov na Donu)

TITLE: On the Problem of Transient Processes in a Magnetic Amplifier  
With an Inductive Load Connected Over the Rectifier  
(K voprosu o perekhodnykh protsessakh v magnitnom usilitele  
s induktivnoy nagruzkoj, vklyuchennoy cherez vypryamitel')

PERIODICAL: Avtomatika i Telemekhanika, 1958, Vol. 19, Nr. 3, pp. 228-238 (USSR)

ABSTRACT: The attempt is made here to derive approximation formulae  
by means of which the duration of the transient process in  
the case of inductive load with the use of cores and recti-  
fiers (which are no ideal ones) and with the taking into  
account of the transient process in the control circuit can  
be evaluated. The investigation was based on the method  
of calculation of magnetic amplifiers according to the li-  
nearized magnetization characteristics (Ref 3). The problem  
is limited by "weak" signals in the magnetic choke-coupled  
amplifier. By "weak", such signals are to be understood at  
which the currents and voltages acting in the operational  
windings of the choke as well in the case of a stabilized as  
of a transient method of working do not exceed the limits

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103-19-3-5/9

On the Problem of Transient Processes in a Magnetic Amplifier With an Inductive Load Connected Over the Rectifier

of the rectilinear part of the magnetization characteristics. In connection with this fact the parameters of the amplifier can be considered constant. The initial magnetization is introduced by an additional winding which is connected in series with a sufficiently high resistance. It is shown that the magnetic amplifier with inductive load (connected over a rectifier) can be replaced by an equivalent diagram. In the investigation of the duration of the transient process 3 cases are treated: the control current  $\Delta i$  changes discontinuously, the control voltage changes discontinuously ( $\Delta u_0$ ), the control current changes exponentially. Summarizing the author states: 1) The experimental data confirm the usability of the diagram and calculation formulae on which the investigation was based. 2) The obtained formulae for the loading current  $\Delta i_{il}$  permit to determine the influence of the amplification parameters and the rectifier-bridges upon the duration of the transient process in the case of inductive load and weak signals. An evaluation of this duration only according to the time constants of the load is absolutely unacceptable. 3) The formulae given here

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On the Problem of Transient Processes in a Magnetic Amplifier With an Inductive Load Connected Over the Rectifier

can be recommended for working out more exact and more universal methods for an approximate evaluation of the duration of transition processes in the case of weak signals in the future. In the appendices the technical data of the amplifiers and the calculation of the current  $\Delta i_{load}$  are given.

There are 18 figures, 2 tables, and 6 references, 5 of which are Soviet.

SUBMITTED: April 6, 1957

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SAFRIS, L.V., dots.

Directions of further development of automatic block systems.  
Avtom., telem. i sviaz' 3 no.3;31 Mr. '59. (MIEA 12:5)

1.RIIZhT.

(Railroads--Signaling--Block system)

SAFRIS, L.V., dots.; DEL RIO, B., dots.

Interlocking devices. Avtom.telem.i sviaz' 3 no.10:10  
O '59. (MIRA 13:2)

1. Kafedra "Organizatsiya dvizheniya poyezdov" Kostovskogo  
instituta inzhenerov zheleznodorozhnogo transporta.  
(Railroads--Signaling--Interlocking systems)

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001446720006-1

DEL RIO, B., dots.; SAFRIS, L.V., dots.; SAMARINA, N.A., inzh. (Rostov-na-Donu)

Using calculating machines for the preparation of train sheets. Zhel.dor.transp. 41 no.7:91 J1 '59.

(MIRA 12:12)

(Railroads--Traffic)

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001446720006-1"

9.2530

78169

SOV/103-21-3-15/21

AUTHOR: Safris, L. V. (Rostov-on-Don)

TITLE: Some Problems in the Theory of a Magnetic  
Amplifier Loaded by a D-C Drive

PERIODICAL: Avtomatika i telemekhanika, 1960, Vol 21, Nr 3,  
pp 393-401 (USSR)

ABSTRACT:  
The paper analyzes the basic operating conditions  
of a magnetic amplifier loaded by a d-c drive.  
The diagram of the system under consideration is  
shown on Fig. 1. Here,  $U_s$  is the average voltage  
of the power supply;  $W_0\omega$  is the number of turns of  
the a-c winding;  $R$  is the equivalent resistance  
of the a-c circuit;  $u_o$  is the voltage at the input  
of the regulating winding of  $W_0$  turns;  $u_c$  is the  
voltage on brushes of the motor M;  $W_2$  and  $r_2$   
are the number of turns and the resistance of

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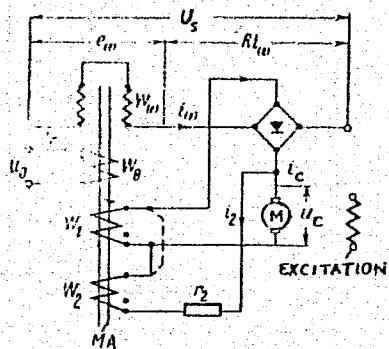


Fig. 1.

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$w_1$  is the number of turns of the current feedback winding. It is assumed (a) that the characteristic of the core magnetization may be replaced by sections of straight lines; (b) that the load line, i.e., the relationship between the choke coil emf and the load voltage, may be represented by a straight line. The operation of the system under consideration is characterized by a regulation

coefficient  $K_r = \frac{\partial n}{\partial I_o}$  when  $M = \text{const}$ , and by a

rigidity coefficient  $K_s = -\frac{\partial M}{\partial n}$  when  $I_o = \text{const}$ .

Here,  $n$  is the motor speed and  $M$  is the motor moment. It is shown that in the absence of feedback no satisfactory operation of the system is possible. The introduction of feedback influences the above coefficients. The current feedback permits the obtaining of required values of  $K_s$ .  $K_r$  does not depend on the current feedback. The voltage feedback increases the regulation coefficient  $K_r$ ,

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but decreases the rigidity coefficient  $K_s$ . Best results are obtained by using simultaneously the two feedback types. The feedback may also accelerate the transient processes. A method is outlined of an approximate computation of the amplifier. There are 2 figures; and 10 Soviet references.

SUBMITTED: November 2, 1959

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ACCESSION NR: AR4014630

S/0271/64/000/001/A009/A009

SOURCE: RZh. Avtomatika, telemekhanika i vy\*chislitel'naya tekhnika, 1964, no. 1,  
Abs. 1A58

AUTHOR: Safris, L. V.

TITLE: Theory of magnetic amplifiers based on their replacement by quadrupoles

CITED SOURCE: Sb. nauchn. tr. Kafedry\* Elektrotekhn. i elektrosnabzh. Rostovsk.  
n/D in-ta inzh. sh. -d. transp., Rostov-na-Donu, 1962, 10-39

TOPIC TAGS: magnetic amplifier, quadrupole, magnetic amplifier simulation,  
magnetic amplifier equivalent circuit

TRANSLATION: A method of analyzing magnetic amplifiers is proposed based on the principle of replacing the saturation coil by an equivalent quadrupole, for which a system of equations is established or a corresponding matrix of parameters. Core properties are accounted for by four coefficients obtained by linearizing the family of curves resulting from simultaneous magnetization by constant and alternating fields. The corresponding equation is found for the magnetic amplifier, which allows all of its characteristic values to be determined. Only amplifiers

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ACCESSION NR: AR4014680

with pairs of coils are examined. Transient processes are assumed to be slow as compared to the supply voltage period (free magnetization model). To illustrate the proposed method, a magnetic amplifier circuit with internal feedback is examined in more detail, and relations are established which are capable of showing the features of this method. Results agree well with experiment and confirm that under the initial assumption given, a magnetic amplifier with paired coils can be replaced by quadrupoles and the highly developed techniques of studying linear circuits can be applied for their analysis and calculation. As in every method based on substitution, this one involves a certain disparity from real circuits, and therefore the individual details of the physical processes do not always stand out explicitly. Orig. art. has: 10 figs. and 11 refs. T.P.

SUB CODE: GS

ENCL: 00

DATE ACQ: 19Feb64

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SAFRIS, L.V. [Safrys, L.V.] (Rostov-na-Donu)

Magnetic amplifiers as linear four-terminal networks. Part 1.  
Avtomatyka 8 no.1:28-38 '63. (MIRA 16:3)  
(Magnetic amplifiers) (Electric networks)

SAFRIS, L.V.

Some operational characteristics of transfluxors. Izv. vys.  
ucheb. zav.; prib. 8 no.3:84-88 '65. (MIRA 18:11)

1. Rostovskiy institut inzhenerov zheleznodorozhnogo transporta.  
Rekomendovana nauchno-tehnicheskoy konferentsiye Rostovskogo  
instituta inzhenerov zheleznodorozhnogo transporta.

SAFRO, L., inzh.

Operation of dredger pumps according to the new planning system.  
Rech.transp. 19 no.8:45 Ag '60. (MIRA 14:3)  
(Dredging machinery)

L 54953-65

ACCESSION NR: AP5014290

UR/0016/65/000/006/0077/0080  
616.24-002-022.7-022.16-078

/8

B

AUTHOR: Il'in, G. I.; Anatoliy, S. A.; Paderina, Ye. M.; Safro, L. N.

TITLE: Significance of the biological activity of microorganisms in the development of experimental staphylococcal infection. II. Pathomorphological and microbiological characteristics of staphylococcal pneumonia in relation to the virulence of the causative agent

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 6, 1965, 77-80,  
and insert facing p. 41

TOPIC TAGS: staphylococcus, pneumonia, lung, microbiology, phagocyte

ABSTRACT: In contrast to weakly virulent staphylococci, highly virulent strains administered intranasally to mice led to the death of the mice or to the development of serous-fibrinous, fibrinous-suppurative pneumonia and lung abscesses in the surviving animals. Cultures from the organs showed that even a severe infection was usually local and confined to the lungs. Moreover, highly virulent staphylococci survived and often multiplied in the cytoplasm of leukocytes in the lungs.

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L 54953-65

ACCESSION NR: AP5014290

This is particularly important for pulmonary infections because the alveolar phagocytes are the first barrier encountered by the causative agent of infection. The symptoms of progressive staphylococcal infection noted in the experimental mice were the same as those associated with staphylococcal pneumonia in children.

ASSOCIATION: none

SUBMITTED: 24Oct63

ENCL: 00

SUB CODE: LS

NO REF SOV: 004

OTHER: 009

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ANATOLIY, S.A.; IL'IN, G.I.; PADERINA, Ye.M.; SAFRO, L.N.

Significance of the biological activity of microbes for the development of experimental staphylococcal infection. Report No.1: Significance of the virulence of the pathogen in the development of general staphylococcal infection in intraorbitally infected mice. Zhur. mikrobiol., epid. i immun. 42 no.1:98-102 Ja '65. (MIRA 18:6)

1. Institut eksperimental'noy meditsiny AMN SSSR.

SAFRO, L.V., inzhener.

Reducing waterway maintenance costs. Rech.transp. 15 no.5:22-23  
My '56. (MLRA 9:8)

1. Zamestitel' nachal'nika sluzhby puti Dneprovskogo BUP.  
(Waterways--Costs) (Dredging)

BARER, G.O.; KALYUZHNAVA, A.M.; SAERO, M.M.

Investigating technological properties of wheat. Izv.vys.  
ucheb.zav.; pishch.tekh. no.3:11-15 '59. (MIRA 12:12)

1. Odesskiy tekhnologicheskiy institut imeni I.V.Stalina.  
Kafedra mukomol'no-krupyanogo proizvodstva..  
(Wheat--Analysis)

S/137/62/000/012/085/085  
A006/A101

AUTHORS: Lyalikov, Yu. S., Kopanskaya, L. S., Safrokova, N. N.

TITLE: Chemical and physico-chemical methods for determining indium,  
antimony, and tellurium in semiconductor alloys

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 12, 1962, 19  
abstract 12K118 (In collection: "Fizika", Leningrad, 1962,  
26 - 30)

TEXT: The authors developed macro- and microchemical methods of determining In, Sb and Te, without separating same, in semiconductor alloys. The mean error does not exceed + 0.5%. For In determination, 5 ml 10% solution of Seignette's salt, 10 - 15 ml buffer mixture (pH 8 - 10) and eriochrome black tracer, are added to the solution under investigation. The mixture is heated to the boiling point and titrated with trilon B until it turns blue. To determine Sb, 5 - 10 ml HCl (1:4) and one drop of methyl red tracer are added to the aliquot portion of the solution, which is titrated in 0.1 n. KBrO<sub>3</sub> solution until it turns yellow. To determine Te, 1 - 2 g KI is added to the aliquot portion of the

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77993  
SOV/40-24-1-21/28

AUTHOR: Safrenchik, A. I. (Saratov)

TITLE: Unsteady Flow of Visco-Plastic Material in a Circular Duct

PERIODICAL: Prikladnaya matematika i mehanika, 1960, Vol 24,  
Nr 1, pp 149-153 (USSR)

ABSTRACT: The article deals with the axisymmetric unsteady flow of an incompressible visco-plastic material in a (long) circular rigid tube of radius R due to a time-independent pressure gradient P(t) in the axial direction. The author previously solved the problem of visco-plastic flow between parallel walls (Priklad. matem. i mekh., 1959, Vol 23, Nr 5). The pressure gradient is assumed to be so large that the shear stress exceeds the yield limit  $\tau_0$ . This results in two distinctive regions separated by a "free" boundary  $r = r^*(t)$ , the first being  $r^*(t) < r < R$ , where material behaves visco-plastically and the

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Unsteady Flow of Visco-Plastic Material in a Circular Duct

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other being the elastic "kernel"  $0 \leq r < r_0(t)$ , which moves as a solid. A method of I. I. Kolodner (Comm. on Pure and Appl. Math., Vol 9, Nr 1, 1956) is again used to obtain an exact solution of the problem, i.e., the axial component of velocity  $v(r,t)$  in the first region, as well as the manner in which the "kernel" changes with time. This entails solving:

$$\nu \frac{\partial v}{\partial t} = \mu \left( \frac{\partial^2 v}{\partial r^2} + \frac{1}{r} \frac{\partial v}{\partial r} \right) + \frac{\tau_0}{r} + P(t) \quad \left( P(t) = -\frac{\partial p}{\partial z} \right) \quad (1.1)$$

subject to the initial condition  $v(r,0) = F(r)$  for  $r_0(0) < r < R$ , the viscous sticking condition  $v(r, t) = 0$  for  $r = R$ , and two free boundary conditions:  $\partial v / \partial r = 0$  and

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$$\rho \frac{dv_0(t)}{dt} = P(t) - \frac{2\tau_0}{r_0(t)} \quad (1.5)$$

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for  $r = r_o(t)$ . This last condition is obtained by treating the kernel as a solid with variable mass and by applying the law of conservation of momentum. Here,  $r_o(0)$  is initial radius of the kernel;  $\rho$  is density;  $\mu$  is coefficient of viscosity;  $v(t)$  is speed of the kernel. After transforming to dimensionless variables, the author shows how to construct a solution consisting of the sum of four quantities (Kolodner's method). The first two correspond in the old

$-\tau_o r/\mu + \rho^{-1} \int_0^t P(t) dt$ . The third term K is taken as a regular solution of the parabolic equation to which (A) reduces when the quantity  $\tau_o/r + F(t)$  is omitted, and satisfies the initial condition:

$$K(r,0) = \tau_o r/\mu + F(r).$$

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This function is explicitly constructed by superposition and is shown to satisfy this initial condition. The fourth and last function  $\lambda$  is taken as a nonregular solution of the same parabolic equation but is assumed to satisfy zero initial data. In addition,  $\lambda$  is required to satisfy the remaining boundary conditions, suitably modified. The author then shows how to construct

$\lambda$  as the sum of a regular part and a unique irregular part by extending the region of definition of  $\lambda$  to the entire space. The regular solution is shown to correspond to the temperature distribution in an infinite rod with unit coefficient of thermal conductivity, zero initial temperature, and a certain temperature distribution on the boundary. The irregular part is shown to be related to single and double layer thermal potentials. The solution so obtained is in terms of the unknown kernel radius  $r_o(t)$ . To obtain  $r_o(t)$ , two integral equations are written down for the determination of  $r_o(t)$  which arise from using the fact that  $\lambda$  and its r-partial derivative are zero as the boundary of the kernel is

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approached from within the kernel. It is noted that any solution of the first integral equation is a solution of the second, and conversely. With the determination of  $r_0(t)$ , the velocity distribution in the plastic zone is then known. Yu. I. Krasil'nikov (Priklad. matem. i mekh., 1956, Vol 20) considered an analogous problem, but his method did not provide an exact solution. C. V. Fal'kovich was consulted in the preparation of the paper. There are 3 references, 2 Soviet, 1 U.S. The U.S. reference is J. J. Kolodner, Free Boundary Problem for the Heat Equation with Applications to Problems of Change of Phase. Communications on Pure and Applied Mathematics, IX, Nr 1, 1956.

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~~SAFRONCHIK, D.~~

Production costs are reduced. Prom.koop. 13 no.6:11 Je '59.  
(MIRA 12:9)

1. Tekhnoruk arteli invalidov "Bytovik", Moskva.  
(Moscow--Cooperative societies)

SAFRONCHIK, V. I..

Vol'nov, Iu. N. and Safronchik, V. I.. "The change in the function and the dielectric properties in the process of glycerolysis of linseed oil." P. 744.

The average values of molecular polarization and molecular refraction and their change during the reactions of glycerolysis and condensation were determined.

November 2, 1946, Re-entered Nov. 28, 1947

SO: Journal of Applied Chemistry (USSR) 21, No. 7 (1948)

SAFRONCHIK, V. I.

PA 11/49T35

USSR/Chemistry - Linseed Oil      Jul 48  
Chemistry - Saponification

"Changes of the Applicability and Dielectric Properties in the Process of Glycerolysis of Linseed Oil," Yu. N. Vol'nov, V. I. Safronchik, 6 $\frac{1}{2}$  pp

"Zhur Priklad Khimii" Vol XXI, No 7

Studies alteration of chemical and physical properties during glycerolysis of linseed oil, and condensation products of glycerolysis with phthalic anhydride. Submitted 2 Nov 46. Resubmitted 23 Nov 47.

11/49T35

BLYUMIN, Izrail' Grigor'yevich. Prinimal uchastiye SHLYAPENTOKH, V.,  
kand.ekonom.nauk. SAFRONCHUK, V.S., red.; SHCHETININ, V.D.,  
red.; ROMANOVA, M.I., tekhn.red.

[Crisis of present-day bourgeois political economy] Krizis  
sovremennoi burzhuaznoi politicheskoi ekonomii. Moskva, Izd-vo  
In-ta mezhunar.ochnoshenii, 1959. 563 p. (MIRA 13:1)  
(Economics)

OVSYANNIKOV, S.G.; CHASHINSKIY, I.D.; SAFRONENKO, A.P., redaktor;  
LAZARCHIK, K., redaktor; STEPANOVA, N., tekhnicheskiy redaktor

[Manual for the collective farm stock breeder] Spravochnik kolkhoznogo  
zhivotnovoda. Minsk, Gos. izd-vo BSSR, 1956. 317 p. (MIRA 10:2)

1. Glavnny zootehnik Ministerstva sel'skogo khozyaystva BSSR (for  
Safronenko)  
(Stock and stockbreeding)

LUTSEVICH, P.A.; MONGALEV, G.F.; MIKHALEVICH, N.G.; ZINOVICH, K.F.;  
SAFRONENKO, A.P.; KLIMENKOV, P.A.; GAYDUKEVICH, N.M.; SILIN,  
M.S.; BRAZOVSKIY, P.V.; KOVPAK, M.D.; MELESHKEVICH, O.A.;  
KAMENTSEVA, V.N.; KULIKOVSKIY, A.V.; TARAYKOVICH, P.I.;  
ALEYNIKOV, G.A.; SHMULEVICH, Sh.S.; GRACHEVA, K.I.; NIKOLAYEVA,  
Yu.N.; VOLOKHOV, M.A.; DOMASHEVICH, O., red.; KARKLINA, E.,  
red.; ZUYKOVA, V., tekhn. red.

[Manual for livestock raisers] Spravochnik zhivotnovoda.  
2., dop. i perer. izd. Minsk, Gos.izd-vo sel'khoz.lit-ry  
BSSR, 1963. 462 p. (MIRA 16:8)

1. Glavnnyy zooteknik Upravleniya nauki Ministerstva sel'skogo  
khozyaystva Belorusskoy SSR (for Safronenko).  
(Stock and stockbreeding)

SAFRONENKO, G.D. [Safronenko, H.D.], kand.med.nauk

Suturing ruptures of the uterine cervix six days after labor as a method for preventing cancer. Ped., akush. i gin. 20 no.2:52-53 '58. (MIRA 13:1)

1. Rodil'no-ginekologicheskoye otdeleniye (zav. - glavnnyy ginekolog G.D. Safronenko) 2-oy Kheronskoy gorodskoy bol'nitsy (glavnnyy vrach - V.L. Kizel'man).

(UTERUS--CANCER) (PUERPERIUM)

15 (2)

AUTHORS:

Kulik, A. I., Safronenko, S. A.,  
Salganik, L. D.

SOV/131-59-7-2/14

TITLE:

The Use of Electric Filters for Cleaning the Flue Gases of  
Rotary Driers (Primeneniye elektrofil'trov dlya ochistki  
dymovykh gazov sushil'nykh barabanov)

PERIODICAL:

Ogneupory, 1959, Nr 7, pp 293 - 299 (USSR)

ABSTRACT:

The Vsesoyuznyy institut ogneuporov (All-Union Institute for Refractories) and the Leningradskiy filial Giprogazochiastki (Leningrad Branch of the Giprogazochiastki (State Institute for the Designing of Structures for Gas Purification)) for the dust collection from the flue gases of rotary driers, chose the electrical method by means of horizontal electric filters of the Ts-11,5 type. In 1958, a one-section electric filter was put into service. The scheme of the flue-gas dust removal of rotary driers is shown in figure 1, and described. The electric filter of the Ts-11,5 type is shown in figure 2. The precipitation of dust takes place under the influence of an electric field of high voltage. The dust deposited on the electrodes, which has lost its electric charge, is thrown into the bunker

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The Use of Electric Filters for Cleaning the Flue  
Gases of Rotary Driers SOV/131-59-7-2/14

by means of vibrators (Fig 3). The purified gas is led into the atmosphere by a chimney 35 m high. The feeding of the electric filters by high-voltage current is carried out by means of e-electric units of the AFA-90-200 type. The putting into operation, and adjustment, of the electric filter is further described. Its working figures are indicated in table 1, and its electric working conditions in table 2. The scheme of the gas tester is given in figure 4, and the test results of the electric filters under different working conditions of the rotary drier are given by tables 3 and 4. The filtering plant consumes a total of 70 kw of current. The utilization of the dust permits the same quantity of clay to be saved, and the building and operating costs to be amortized in this way. Conclusions: Since March 1958, the electric filter has been working perfectly with a degree of dust removal of from 99.18 to 99.8%. After purification, the flue gases contain 157mg/m<sup>3</sup> of dust. The use of electric filters does not only purify the air in the factory and its surroundings, but also yields annual savings of 280,000 rubles when 5 electric filters are employed. Finally, the editors of the periodical recommend the installation of these electric filters

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The Use of Electric Filters for Cleaning the Flue  
Gases of Rotary Driers

SOV/131-59-7-2/14

to other factories of refractories (see footnote 1). There are  
4 figures and 4 tables.

ASSOCIATION: Chasov-Yarskiy zavod ogneupornykh izdeliy im. Ordzhonikidze  
(Chasov-Yar Works of Refractory Products imeni Ordzhonikidze)

Card 3/3

15 (2)  
AUTHORS:Kulik, A. I., Safronenko, S. A.,  
Salganik, L. D.

SOV/131-59-8-2/14

TITLE:

Manufacture of Magnesite Casting Linings

PERIODICAL:

Ogneupory, 1959, Nr 8, pp 338-342 (USSR)

ABSTRACT.

In 1958 the Chasov-Yar Plant imeni Ordzhonikidze started above manufacture. The following persons participated in the work: Ya. L. Rigberg, K. Ye. Kapran, T. S. Karmanova, A. P. Zatula, P. S. Gaydar, K. I. Kotlyarov, L. V. Medvedev, V. M. Baris, G. N. Skripnik, and Ya. F. Yevtushenko (Footnote 1). On the basis of laboratory experiments the production scheme was introduced as shown in figure 1. Further, the charge- and grain composition are described. The lining was pressed on a 290-t friction press (Fig 2) and dried in the already existing tunnel drying plants. They were burnt in tunnel furnaces simultaneously with casting-ladle bricks at 1510° (see Fig 3). Burning conditions are represented in figure 4. The burnt casting linings are tested according to the specifications of GOST 5500-50. Unburnt casting linings are controlled in accordance with the provisional technical instructions of the Sovnarkhoz of the Stalingrad Economic Rayon. Furthermore, the practical testing of burnt and unburnt linings is

Card 1/2

Manufacture of Magnesite Casting Linings

SCV/131-59-8-2/14

described and noted to be successful. After the magnesite casting linings had been tested they were subjected to a petrographic analysis by the Petrographic Laboratory of the UNIIO (Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov = Ukrainian Scientific Research Institute for Refractory Materials) (see Footnote 2). Besides, its microstructure is described in detail. Conclusions: Casting linings pressed in a friction press and burnt in a tunnel furnace exhibit positive results when used in casting ladles. They comply with the quality specifications of GOST 5500-50 if they are burnt at 1500°. Unburnt magnesite casting linings also provide positive results under equal conditions, and can replace the burnt ones. The manufacture of magnesite casting linings is cheaper as burning and the resulting working processes are superfluous. There are 4 figures.

ASSOCIATION: Zavod im. Ordzhonikidze (Plant imeni Ordzhonikidze)

Card 2/2

SAFRONENKO, V.G., mayor

How we are improving the training method in radio communications.  
Vest.Vozd.FI. 41 no.2:41-45 F '59.

(MIRA 12:4)

(Radio in aeronautics)

(Flight crews--Education and training)

SAFRONENKO, V.G., podpolkovnik

Table for the flight director. Vest.Vozd.Fl. no.11:42-43 N '60.  
(MIRA 13:11)  
(Air traffic control--Equipment and supplies)

MARKEVICH, S.M.; POLYANSKIY, N.G.; BUZLANOVA, M.M.; SAFRONENKO, Ye.D.

Rapid mercurimetric method for the determination of isobutylene in  
cracking fractions. Zhur. anal. khim. 16 no. 4:489-493 Jl-Ag '61.  
(MIRA 14:7)

1. Scientific-Research Institute of Synthetic Alcohols, Branch in  
Novokuybyshevsk.

(Propene)

POLYANSKIY, N.G.; MARKEVICH, S.M.; SAFRONENKO, Ye.D.; BUZLANOVA, M.M.

Use of bivalent mercury sulfate in the quantitative analysis  
of olefins and tertiary alcohols. Report No.1: Quantitative  
determination of  $\alpha$ -methylstyrene and dimethylphenylcarbinol  
present simultaneously. Trudy Kom.anal.khim. 13:93-98 '63.  
(MIRA 16:5)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov,  
Novokuybyshevskiy filial.  
(Styrene) (Alcohols) (Mercury sulfates)

L 61018-65

ACCESSION NR: AP5013774

UR/0366/65/001/005/0844/0848 24

55,44

547.313.2+547.412.263.4

21

44,55

B

AUTHOR: Afanas'yev, I.B.; Yeremina, T.N.; Safronenko, Ye.D. 44,55

TITLE: Telomerization of ethylene with chlorobromomethane: relationship between the reactivities of chlorobromomethane in the telomerization with ethylene along the C-Br and C-H bonds 7,55

SOURCE: Zhurnal organicheskoy khimii, v. 1, no. 5, 1965, 844-848

TOPIC TAGS: telomerization, chlorobromomethane reactivity, chlorobromomethane ethylene telomerization, carbon bromine bond, carbon hydrogen bond, chain transfer constant, reaction rate constant, alkyl telomer radical, chlorobromomethane conversion, nonyl chloride, heptyl chloride, chlorobromoalkane

ABSTRACT: The relationship of two different reactions in the telomerization of chlorobromomethane with ethylene along the C-Br and C-H bonds was investigated and the results presented in Table 1 of the Enclosure. The chain transfer constants  $C_n$  were determined so that the error does not exceed 12%. The results show that: 1) the  $C_n$  have a maximum value at  $n = 3$ ; 2) the  $C_n$  value for the C-H(CH<sub>3</sub>) is about 10 times as low as that for C-Br(CBr); and 3) the ratio  $K_1:K_2 = 10$  of the rate con-

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ACCESSION NR: AP5013774

stants of the two reactions is not affected by the length of the alkyl telomer radical. It is pointed out that the K<sub>1</sub>:K<sub>2</sub> values obtained by R.J. Fox and co-workers (Trans. Farad. Soc., 57, 1905, 1961) are incorrect. Orig. art. has: 6 formulas and 2 tables.

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut azotnoy promyshlennosti i produktov organicheskogo sinteza (GIAP) (State Scientific Research and Planning Institute for the Nitrogen Industry and Organic Synthesis Products)

SUBMITTED: 10Jun64

ENCL: 02

SUB CODE: OC, GC

NO REF Sov: 003

OTHER: 005

Card 2/4

L 61018-65

ACCESSION NR: AP5013774

ENCLOSURE: 01

Table 1. Telomerization of ethylene with chlorobromomethane at 100°C and initial ethylene pressure of 40 atm

Experiment No.	Amount of chlorobromomethane, g	Amount of benzol, g	Initiating agent, g	d R fin	Conversion of chlorobromomethane, %
1	672	—	PB <sup>b</sup> (4.9)	1.43±0.04	10.3
2	672	—	ABN <sup>c</sup> (4.0)	1.45±0.05	10.0
3	345	150	ABN' (2.0)	0.655±0.030	6.5
4	202	186	PB' (1.5)	0.445±0.015	5.0
5	672	—	ABN' (4.0)	1.37±0.003	11.8

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ACCESSION NR: AP5013774

ENCLOSURE: 02

O

Table 1 (Cont.)

Telomer composition (mol.%) <sup>a</sup>							Heptyl chloride, mol.% for n <sub>3</sub>	Nonyl chloride, mol.% for n <sub>4</sub>
n <sub>1</sub>	n <sub>2</sub>	n <sub>3</sub>	n <sub>4</sub>	n <sub>5</sub>	n <sub>6</sub>	high erf		
18.4 ± 0.1	30.2 ± 1.1	23.5 ± 1.7	10.4 ± 1.0	—	—	8.4	9.0 ± 1.1	11.0 ± 1.6
21.3 ± 1.5	28.2 ± 1.4	23.3 ± 0.7	10.7 ± 0.6	4.2	—	3.2	9.0 ± 0.9	10.0 ± 0.3
9.6 ± 0.6	20.3 ± 1.0	21.1 ± 1.5	14.3 ± 1.5	9.1	6.3	10.2	—	—
5.7	14.8	17.6	13.8	10.9	7.9	20.2	—	—
14.3 ± 0.5	25.2 ± 1.3	23.2 ± 1.8	12.9 ± 1.0	7.0	—	8.3	9.0 ± 1.0	10.7 ± 0.5

Notes. a) The experiment was carried out at 65°C; b) EB is benzoyl peroxide; c) ABN is azoisobutyronitrile; d) molar ratio of telogen:olefin, average of three-six tests; e) mol.% n<sub>1</sub>-n<sub>2</sub> are the averages of three tests in each experiment except for experiment No. 4, where the n<sub>1</sub>-n<sub>2</sub> is determined from the residue after distilling the nonreacted chlorobromomethane owing to the low conversion. The sum of telomer chloro-bromoalkanes is 9.1 mol%; it is assumed that there has to be 9.1 mol.% on the alkyl chlorides; f) calculated in accordance with a formula. n is chain length, R is radical.

KATSOBASHVILI, V.Ya.; SAFRONENKO, Ye.D.; AFANAS'YEV, I.B.

Determination of the chain transfer constants in the reaction of ethylene with ethyl iodide. Vysokom. soed. 7 no.5:323-327 My '65.  
(MIRA 18:9)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut azotnoy promyshlennosti i produktov organicheskogo sinteza.

RAKOVITSAN, Aleksandr Petrovich, kand.tekhn.nauk, dots.; SAFRONEYEV,  
Vladimir Borisovich, inzh.; LISEYEV, Vasiliy Pavlovich, dots.;  
GONCHAR, A.S., red.; LEBEDEVA, L.A., tekhn. red.

[Design of reinforced-concrete engineering structures] Pro-  
ektirovaniye zhelezobetonnykh inzhenernykh sooruzhenii. Kiev,  
Gosstroizdat USSR, 1962. 366 p. (MIRA 15:7)  
(Reinforced concrete construction)  
(Hydraulic structures)

L 17587-65 EWT(m)/EWG(s)-2/EWP(j) Pe-4/Pw-4 RM  
ACCESSION NR: AR4049233 S/0081/64/000/014/S070/S070

SOURCE: Ref. zh. Khimiya, Abs. 14S479

B

AUTHOR: Safroneyev, V. B.

TITLE: Plastic concrete on a furfural acetone monomer base

CITED SOURCE: Sb. Proiz-vo stroit. izdeliy iz plastmass. Minsk, Vyssh. shkola,  
1963, 201-208

TOPIC TAGS: plastic concrete, furfural acetone curing agent, plastic concrete creep,  
plastic concrete aging

TRANSLATION: The article lists in detail the technical characteristics of plastic concrete mixed from furfural acetone monomer, sand or sand and gravel mixture, oil furnace black or head and power plant cinders (or andesite powder), furfural, benzene-sulfonic acid and acetone. The mixing process is described. An attempt was made to determine processes taking place during the mixing, pouring and curing of the concrete. To improve the quality and perfect mixing techniques and application procedures for plastic-based mortars and concrete, the author recommends selection of a suitable

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L 17587-65

ACCESSION NR: AR4049233

O  
compound to bind water present in the filler and moisture of condensation, research on a curing agent which would not affect the products of polymerization of furfural acetone, the selection of a solvent for the curing agent (neutral to the agent and the other components), a study of the curing process, and an analysis of aging and creep in plastic-based concrete. Z. Ivanova

SUB CODE: MT

ENCL: 00

Card 2/2

SAFRONCHIK, V.I., inzh.

Color waterproofing of cooling towers on the basis of epoxy resin  
varnishes and paints. Izv. VNIIG 76:333-344 '64. (MIRA 18:10)

KOIMAKOV, V.M., inzh.; YEFREMOV, Yu.M., inzh.; SAFRONEYEV, V.B., inzh.;  
KABAL'SKIY, M.M., kand. tehn. nauk

Semiautomatic coupling for mine cars. Shakht. stroi. 7 no.3:  
27 Mr'63 (MIRA 17:7)

1. Nauchno-issledovatel'skiy institut organizatsii i mekhanizatsii stroitel'nogo proizvodstva, g. Kiyev.

SAFRONICH, L.N.

Chemical study of the alkaloids of Caulophyllum robustum Max.  
(MIRA 14:2)  
Trudy VILAR no. 11:30-37 '59.  
(BARBERRIES) (ALKALOIDS)

ZABOLOTNAYA, Ye.S.; SAFRONICH, L.N.

Chemical investigation of the roots of *Imula grandis* Schrenk.  
Trudy VILLAR no. 11:152-156 '59. (MIRA 14:2)  
(CARDUACEAE) (ALKALOIDS) (ESSENCES AND ESSENTIAL OILS)

GRINKEVICH, N.I.; IGNAT'YVA, N.S.; SAFRONICH, I.N.

Examination of some representatives of the Compositae family  
for manganese and carotene content. Apt. date 12 no. 2:38-40  
Mr-Ap '63. (MIRA 17:7)

I. Farmatsevticheskiy fakul'tet I Moskovskogo ordena Lenina  
meditsinskogo instituta imeni I.M. Sechenova.

SAFRONIY, Ye.P., inzh.

Instrument for checking tubular dischargers. Energetik 13  
no.11:31-32 N '65. (MIRA 18:11)

SAFRONIY, Ye.P., inzh.

Recording of the operating characteristics of RTV relays. Energetik  
11 no.5:38 My '63. (MIRA 16:7)  
(Electric relays)

SAFRONIY, Ye.P., inzh.

Mechanical twofold automatic reclosing with automatic deblocking.  
Energetik 11 no.10:28-29 0 '63. (MIRA 16:11)

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001446720006-1

SAFRONOV, Yu.L.; ARTYUKHOV, F.N.

Automatic device for wrapping rayon packages. Khim. volok. no.1:  
26-27 '62. (MIRA 18:4)

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001446720006-1"

PAVLOVA, A.V.; SAFRONKOVA, N.N.

Total determination of metals with the aid of tartrates.  
Trudy Kom.anal.khim. 5: 229-236 '54. (MLRA 8:6)  
(Metals)(Volumetric analysis)(Tartrates)

COUNTRY : USSR J  
CATEGORY : Soil Science. Physical and Chemical Properties  
of Soil.  
ABS. JOUR. : PZH Biol., No. 4, 1959, No. 15367  
  
AUTHOR : Safronkova, N.N.  
INST. : Moldavian Affiliate AS USSR  
TITLE : Volumetric Method of Determination of Total  
Pesticicides in Soils.  
  
ORIG. PUB. : Izv. Mold. fil. AN GSSR, 1957, No. 9 (42), 73-83  
  
ABSTRACT : The total  $P_2O_5$  was determined in average cherno-  
zem, clayey soil and in brown forest soil. The  
steps in the determination are described, and an  
example of the calculation is given. The sug-  
gested volumetric method of determination of the  
amount of  $P_2O_5$ , Al, and Fe in the soil consists  
of a titration of the investigated solution of  
potassium sodium tartrate and  $CaCl_2$  with an al-  
kali in the presence of phenolphthalein. The ad-  
vantage of the method consists of a reduced time

Card:

1/2

88278

S/032/61/027/001/003/037  
B017/B054

94300/1043, 1138, 1143)

AUTHORS: Safronkova, N. N. and Lyalikov, Yu. S.

TITLE: Chemical Analysis of Semiconductor Alloys in the System  
In - Sb - Te

PERIODICAL: Zavodskaya laboratoriya, 1961, Vol. 27, No. 1, pp. 21-22

TEXT: A complexometric method of determining indium in the presence of antimony and tellurium by redox reactions has been developed. Tellurium is reduced in acid medium by iodine, and antimony (III) is determined by titration with bromate using methyl red as indicator. Preliminary tests were made with synthetic mixtures of spectroscopically pure indium, antimony, and tellurium. The sensitiveness of tellurium determination in the presence of antimony was found to be  $\pm 0.5\%$ . Indium determination in the presence of antimony and tellurium was possible with an accuracy of  $\pm 0.5\%$ . Indium was determined at pH 8-10 by titration with 0.01 M Trilon B solution and with the use of eriochrome black as indicator until the color changed from violet to blue. Compounds and alloys in the system In - Sb - Te were studied. There are 4 figures.

Card 1/2

88278

Chemical Analysis of Semiconductor Alloys  
in the System In - Sb - Te

S/032/61/027/001/003/037  
B017/B054

ASSOCIATION: Institut khimii Moldavskogo filiala Akademii nauk SSSR  
(Institute of Chemistry, Moldavian Branch of the Academy of  
Sciences USSR)

Card 2/2

L 15035-65 EWT(1)/ENG(k)/EWT(m)/T/EWP(b)/EWA(h) Peb/Pz-6 IJP(c) RDW/AT/  
JD/MLK  
ACCESSION NR: AT4048099 S/0000/64/000/000/0121/0122

AUTHOR: Safronkova, N.N.

TITLE: Polarographic analysis of semiconductor alloys of the In-Sb-Te system

SOURCE: Spektral'nye i khimicheskiye metody\* analiza materialov (Spectral and  
chemical methods of materials analysis); sbornik metodik. Moscow, Izd-vo Metallurgiya,  
1964, 121-122

TOPIC TAGS: indium alloy, antimony alloy, tellurium alloy, semiconductor alloy,  
polarography

ABSTRACT: A polarographic method is described for the determination of indium, antimony  
and tellurium without their preliminary separation. This method was used for the analysis  
of some semiconductor In-Sn-Te compounds and alloys. To reduce these metals on the  
dropping mercury electrode, different base electrolytes were used: for trivalent indium,  
0.5 M HCl,  $E_{1/2} = -0.63$  v; for trivalent antimony, well-formed waves were obtained in  
strongly acid solution such as 2.0 M HCl,  $E_{1/2} = -1.24$  v; for tetravalent tellurium  
in alkaline solutions, one wave was formed at  $E_{1/2} = -1.22$  v. It was found that the best  
electrolyte is 0.25 N NaOH. A mirror galvanometer with a sensitivity of  $2.5 \times 10^{-9}$  amps/  
mm/m was used. In, Sb and Te solutions were prepared from spectroscopically pure

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L-15035-65

ACCESSION NR: AT4048099

metals. The analytical process is described in detail. The analytical results on semiconductor compounds and alloys are tabulated in comparison with the theoretical data and those obtained by chemical methods. Orig. art. has: 1 table.

ASSOCIATION: Institut khimii Akademii nauk Mold. SSR (Institute of Chemistry, Academy of Sciences of the Moldavian SSR)

SUBMITTED: 12Feb64 . ENCL: 00

SUB CODE: IC, MM

NO REF SOV: 002 OTHER: 000

Card 2/2

S/020/63/148/001/032/032  
B101/B186

AUTHORS: Nikitin, Yu. P., Korpachev, V. G., Safronnikov, A. N.

TITLE: Surface properties of melts on  $\text{CaF}_2$  basis

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 148, no. 1, 1963, 160-161

TEXT: It was found that the surface tension  $\sigma$  rises from 200 to 315 erg/cm<sup>2</sup> if 26% by weight of CaO are added to  $\text{CaF}_2$ . The increase of  $\sigma$  is assumed to be caused by the appearance of double-charged oxygen anions at the surface of the melt. This was proved by measuring the difference  $\Delta\epsilon_w$  between the potential of  $\text{CaF}_2$  and that of  $\text{CaF}_2 + 26\%$  CaO according to the relation:  $\Delta\epsilon_w = \Delta\epsilon'' - \Delta\epsilon' - \Delta\epsilon_x$ .  $\Delta\epsilon_x$  was determined in the galvanic cell Pt(I) |  $\text{CaF}_2$  with CaO traces |  $\text{CaF}_2 - \text{CaO}$  | Pt(II), where

$$\Delta\epsilon_x = \epsilon_{II} - \epsilon_I = 32 \text{ mv.}$$

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S/020/63/148/001/032/032  
S101/B186

Surface properties of melts ...

between the electrodes I and II and a platinum electrode III placed on the melt surface:  $\Delta\epsilon'' = \epsilon_{III} - \epsilon_I = 150$  mv;  $\Delta\epsilon' = \epsilon_{III} - \epsilon_{II} = 90$  mv. The electrodes were in a nitrogen stream. The surface potential of the  $\text{CaF}_2 + 26\%$   $\text{CaO}$  melt was found to be more negative by 28 mv than that of

$\text{CaF}_2$ . Addition of 15% by weight of  $\text{Al}_2\text{O}_3$  reduced  $\Delta\epsilon_w$  almost to zero.

Addition of  $\text{SiO}_2$  to  $\text{CaF}_2$  was without effect on  $\sigma$ . Simultaneous addition of different oxides to  $\text{CaF}_2$  increased  $\sigma$ . Measurements of the interfacial tension  $\sigma_{int}$  between chrome-nickel- and iron-chrome alloys on the one hand and  $\text{CaF}_2 +$  oxides on the other hand showed also a parallelism between  $\sigma_{int}$ ,  $\sigma$ , and the ionic fraction of oxygen. The metal surface at the melt interface was negatively charged. From the parallelism between  $\sigma_{int}$  and  $\sigma$ , a constant adhesion effect between metal and oxide-fluoride melts is inferred:  $W = \sigma + \sigma' - \sigma_{int}$ , where  $\sigma'$  is the surface tension between metal and gas. There are 2 tables.

Card 2/3

Surface properties of melts ...

S/020/63/148/001/032/032  
B101/B186

ASSOCIATION: Ural'skiy politekhnicheskiy institut im. S.M. Kirova  
(Ural Polytechnic Institute imeni S.M. Kirov)

PRESENTED: September 7, 1962, by A. N. Frumkin, Academician

SUBMITTED: July 25, 1962

Card 3/3

SOLOVTSOV, Viktor Koz'mich; SAFRONNIKOV, S.A., nauchn. red.;  
SIL'VESTROVICH, G.A., red.; BARANOVA, N.N., tekhn. red.

[Monitoring and measuring instruments] Kontrol'no-  
izmeritel'nye pribory. Moskva, Proftekhizdat, 1963. 235 p.  
(MIRA 16:12)

(Measuring instruments)

GRACHEV, V.; SAFRONOV, A. (g.Bronnitsy)

Simplest intercommunication unit. Radio no.2:52 F '60.  
(MIRA 13:5)  
(Intercommunication systems)

SAFRONOV, A., inzh.

The giant is still being tested. Izobr. i rats. no. 5:9-11 My '61.  
(MIRA 14:5)

1. Vsesoyuznyy proyektno-izyskatel'skiy i nauchno-issledovatel'skiy  
institut im. S.Ya.Zhuk. (Earthmoving machinery)

SAFRONOV, A. (Ryazan')

Young seamen and model makers. Voen. znan. 25 no.1:18 Ja '49.  
(MIRA 12:12)

(Ryazan'--Ships--Models)

NIKOLAYEV, Yu., inzh.; SAFRONOV, A., inzh.

Pechora River will flow into the Caspian Sea. IUn.tekh. 5  
no.4:23-26 Ap '61. (MIRA 14:3)  
(Caspian Sea) (Pechora River)

SAFRONOV, A. (Novogorsk, Moskovskoy oblasti)

Motor transport on the itinerary. Voen.znan. 41 no.11:22-23  
(MIRA 18:12)  
N '65.

KRIVSKIY, M.; SAFRONOV, A.

Dump tractor-lorry with 110 ton capacity. Avt. transp. 36 no.11:61 N '58.  
(Dump trucks) (MIRA 11:11)

~~SAFRONOV, A., predsedatel'.~~

~~New living quarters for state-farm toilers. V pom.profaktivu 14 no.15:5-7  
Ag '53.~~

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(VARICOSE VEINS, compl.  
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37 no.9:92-93 S '64. (MIRA 18:7)

L 08750-67 EWT(1) JK  
ACC NR: AP6034530

SOURCE CODE: UR/0016/66/000/010/0145/0145

12

AUTHOR: Safronov, A. F.

ORG: none

TITLE: Adaptation of malignant anthrax bacilli to tissue cultures<sup>b</sup>

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 10,  
1966, 145

TOPIC TAGS: animal disease, anthrax, anthrax bacillus, tissue culture,  
HISTOLOGY, VACCINE

ABSTRACT: The most virulent cultures suitable for vaccine manufacture  
are highly cytopathic in tissue culture. This report describes success-  
ful growth and identification of malignant anthrax bacilli in primary  
human amniotic and NER2 cells. The cells were cultured in a standard  
medium with 10% donor serum added. The cytopathic changes produced  
were distinguishable from those produced by another nonvirulent culture.  
Study of the suitability of this method for differentiating anthrax  
cultures according to virulence continues. [W.A. 50]

SUB CODE: 06/ SUBM DATE: 09Mar66

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7389. SAFRONOV A.G. \*The organization of fighting the endemic goitre (Russian text) PROBLEMS ENDOCR. HORMONOTHERAPY  
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